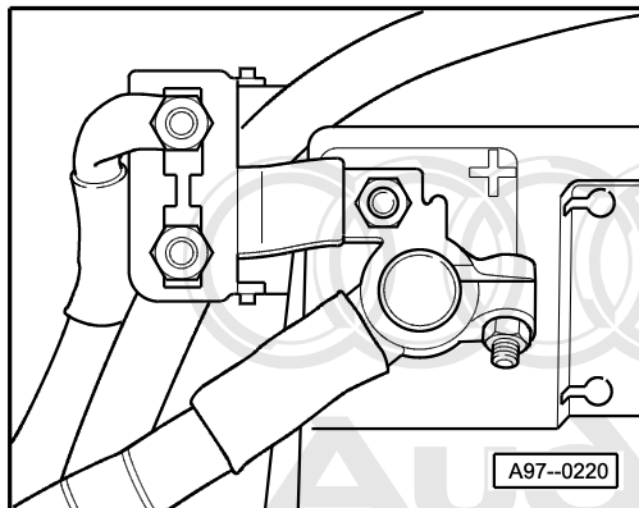


4.2 I - Injection Engine (253 kW - Motronic - 8 Cylinder) engine code BHF

From 2003 m. y.

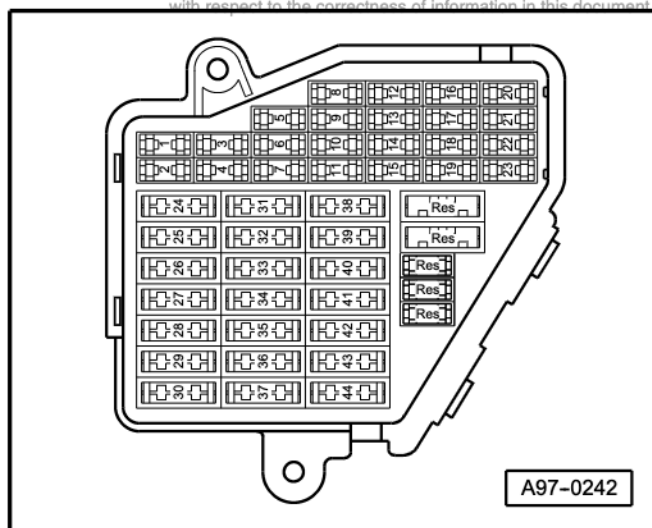
Main fuse



◆ on the Battery

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Fuse holder



◆ Instrument panel driver side

Fuse Colors

30 A - Green

25 A - Withe

20 A - Yellow

15 A - Blue

10 A - Red

7,5 A - Brown

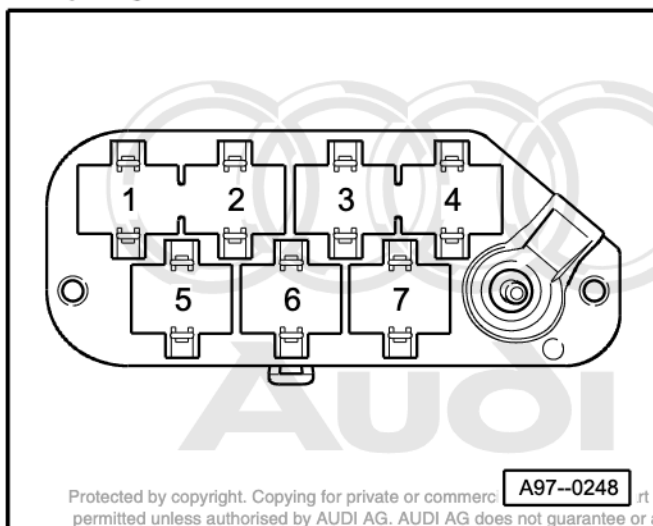
5 A - Beige



Note:

◆ Fuse in fusebox from 23 onwards are numbered 223 onwards in Current Flow Diagram.

Coupling station with threaded connection



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◆ in the electronics box, plenum chamber

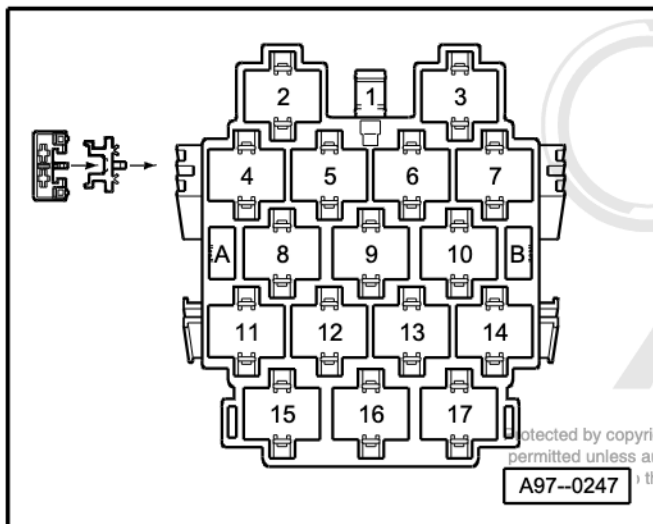
1 - 10-Pin Connector, black (T10)

2 - 10-Pin Connector, brown (T10a)

3 - 17-Pin Connector, red (T17d)

6 - 17-Pin Connector, white (T17e)

Connector station A-pillar

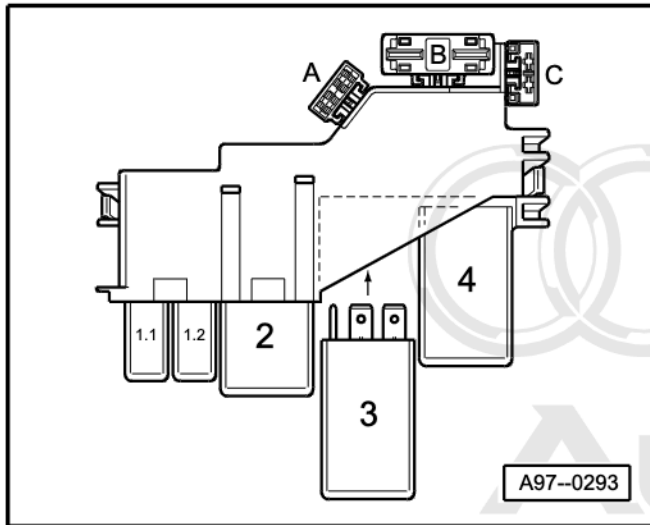


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◆ behind side trim, left

- 13 - 10-Pin Connector, violet (T10c)
- 14 - 10-Pin Connector, grey (T10d)
- 15 - 17-Pin Connector, green (T17b)
- 16 - 17-Pin Connector, red (T17a)
- 17 - 17-Pin Connector, black (T17)

4-Pin Relay Carrier



◆ in the electronics box, plenum chamber

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1.1 - Coolant Circulation Pump Relay (J151)

2 - Secondary Air Injection (AIR) Pump Relay (J299)

3 - Motronic Engine Control Module (ECM) Power Supply Relay (J271)

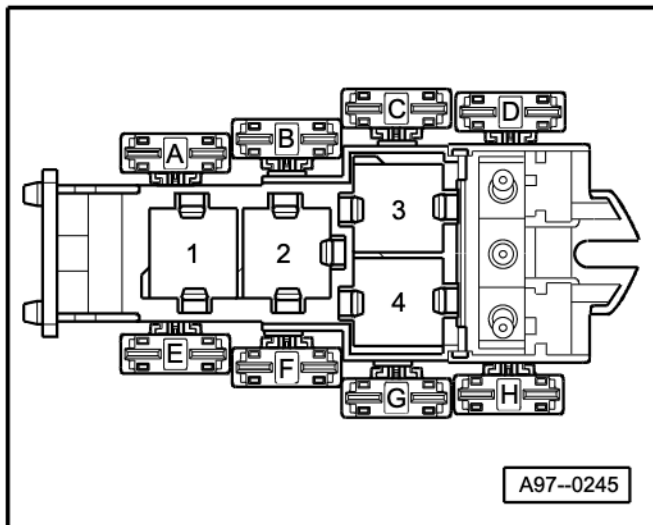
4 - Locking relay for starter (J434)

A - Engine Electronics Fuse (S282)

B - Fuse for secondary air pump (S130)

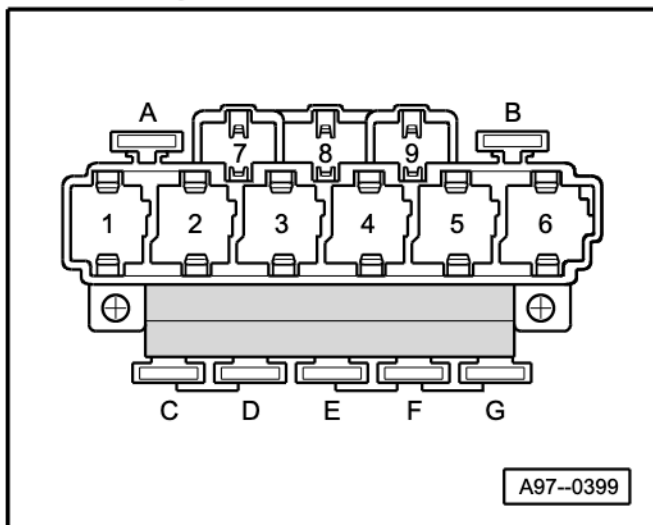
C - Automatic Transmission After-Run Fuse (S286)

4-Pin Relay Carrier with threaded connection



◆ Instrument panel driver side

9-Pin Relay Carrier with Vehicle Electrical System Control Module

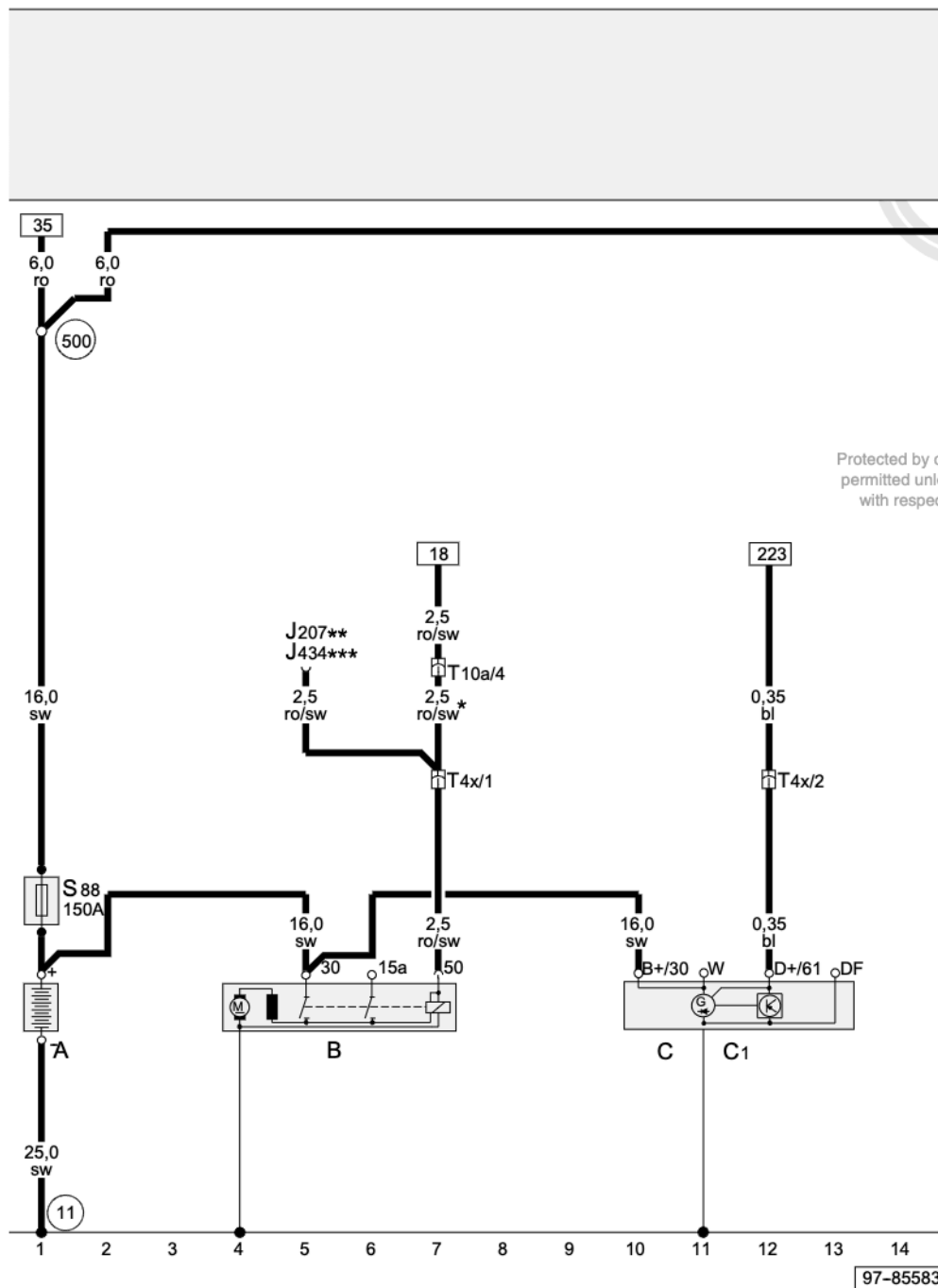


◆ Instrument panel driver side, behind 3-Pin Relay Carrier

1 - Fuel Pump (FP) Relay (J17)



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Battery, Starter, Generator, Locking relay for starter, Clutch Vacuum Vent Valve Switch

- A Battery
- B Starter
- C Generator (GEN)
- C1 Voltage Regulator (VR)
- J207 Starting Interlock Relay
- J434 Locking relay for starter (clutch pedal switch)
- S88 Fuse Strip (main fuse)
- T4x 4-Pin Connector, black, near Battery
- T10a 10-Pin Connector, brown, connector station E-box, plenum chamber

- (11) Ground connection, in battery box
- (500) Threaded connection -1- (30), on the relay plate

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* Manual transmission only
 ** Automatic transmission (AG6) only ⇒ Current wiring diagram for automatic transmission
 *** Manual transmission (USA/CDN) only ⇒ applicable Locking relay for starter, clutch pedal switch wiring diagram

- ws = white
- sw = black
- ro = red
- br = brown
- gn = green
- bl = blue
- gr = grey
- li = lilac
- ge = yellow
- or = orange
- rs = pink



D	Ignition/Starter Switch
J17	Fuel Pump (FP) Relay
S5	Fuse in fuse holder/relay panel
S7	Fuse in fuse holder/relay panel
S14	Fuse in fuse holder/relay panel
S228	Fuse in fuse holder
S232	Fuse in fuse holder
S234	Fuse in fuse holder
S243	Fuse in fuse holder

- 501 Threaded connection -2- (30), on the relay plate
- A2 Plus connection (15), in instrument panel wiring harness
- A32 Plus connection (30), in instrument panel wiring harness
- A57 Plus connection -3- (30), in instrument panel wiring harness
- A98 Plus connection -4- (30), in instrument panel wiring harness
- A99 Connector -1- (87), in instrument panel wiring harness
- A152 Connection -5- (87), in instrument panel wiring harness

Motronic Engine Control Module (ECM), Motronic Engine Control Module (ECM) Power Supply Relay, Fuses

- J220 Motronic Engine Control Module (ECM)
- J271 Motronic Engine Control Module (ECM) Power Supply Relay
- J293 Coolant FC (Fan Control) Control Module
- J671 Coolant FC (Fan Control) Control Module 2
- S4 Fuse
- S229 Fuse in fuse holder
- S282 Engine Electronics Fuse
- S286 Automatic Transmission After-Run Fuse
- T4y 4-Pin Connector, black, engine compartment
- T6n 6-Pin Connector, on Coolant FC (Fan Control) Control Module 2
- T6o 6-Pin Connector, on Coolant FC (Fan Control) Control Module
- T10d 10-Pin Connector, grey, connector station A-pillar, left
- T17d 17-Pin Connector, red, connector station E-box, plenum chamber
- T17e 17-Pin Connector, white, connector station E-box, plenum chamber

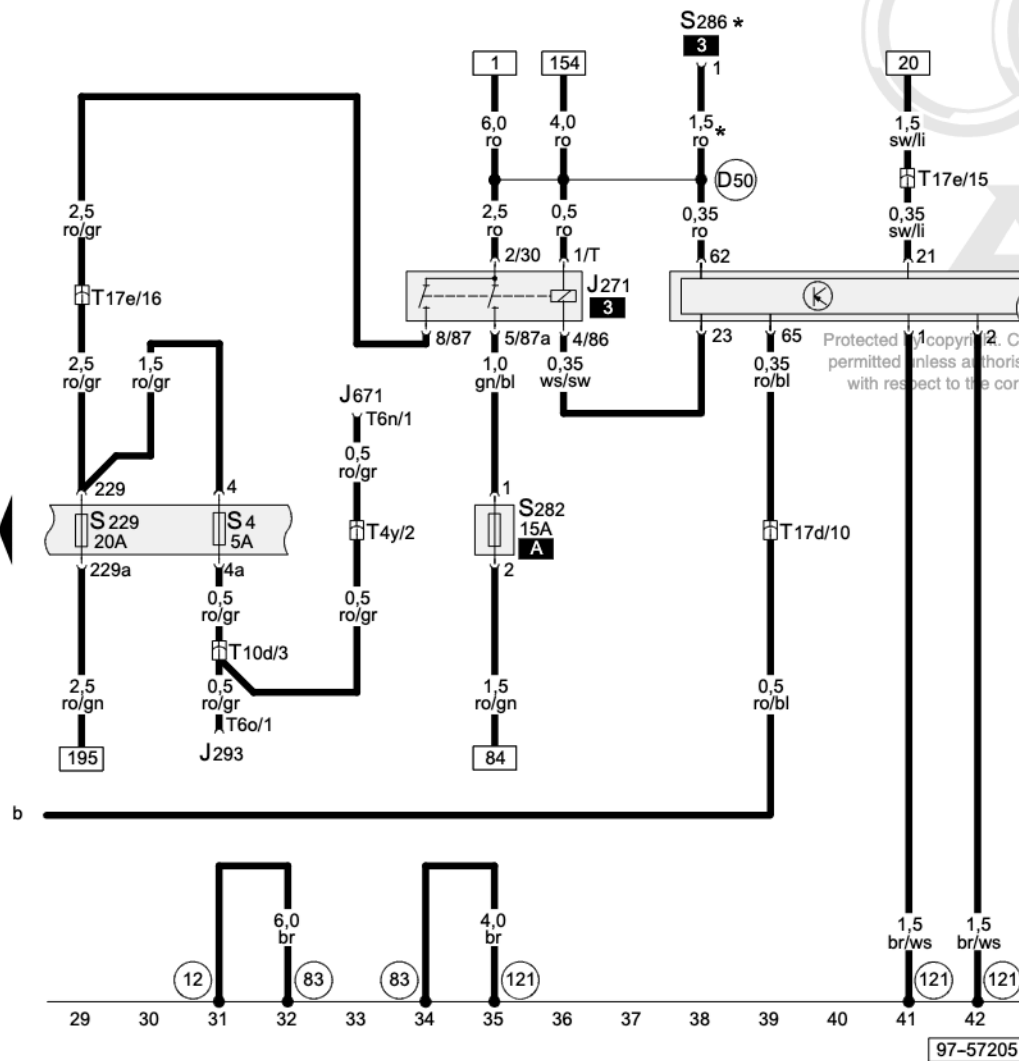
12 Ground connection, in engine compartment, left

83 Ground connection -1-, in right front wiring harness

121 ground connection -2-, in right front wiring harness

D50 Plus connection (30), in engine compartment wiring harness

* Automatic transmission (AG6) only

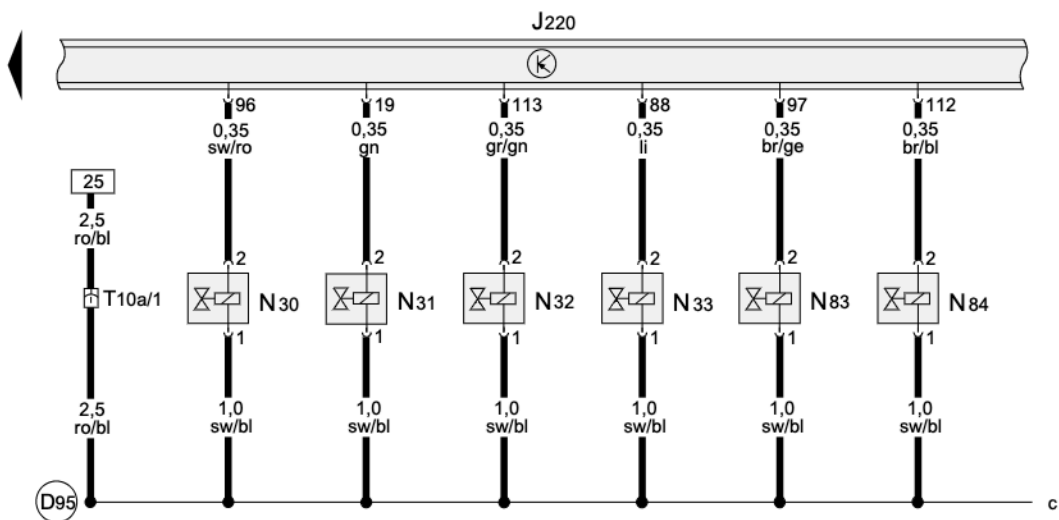




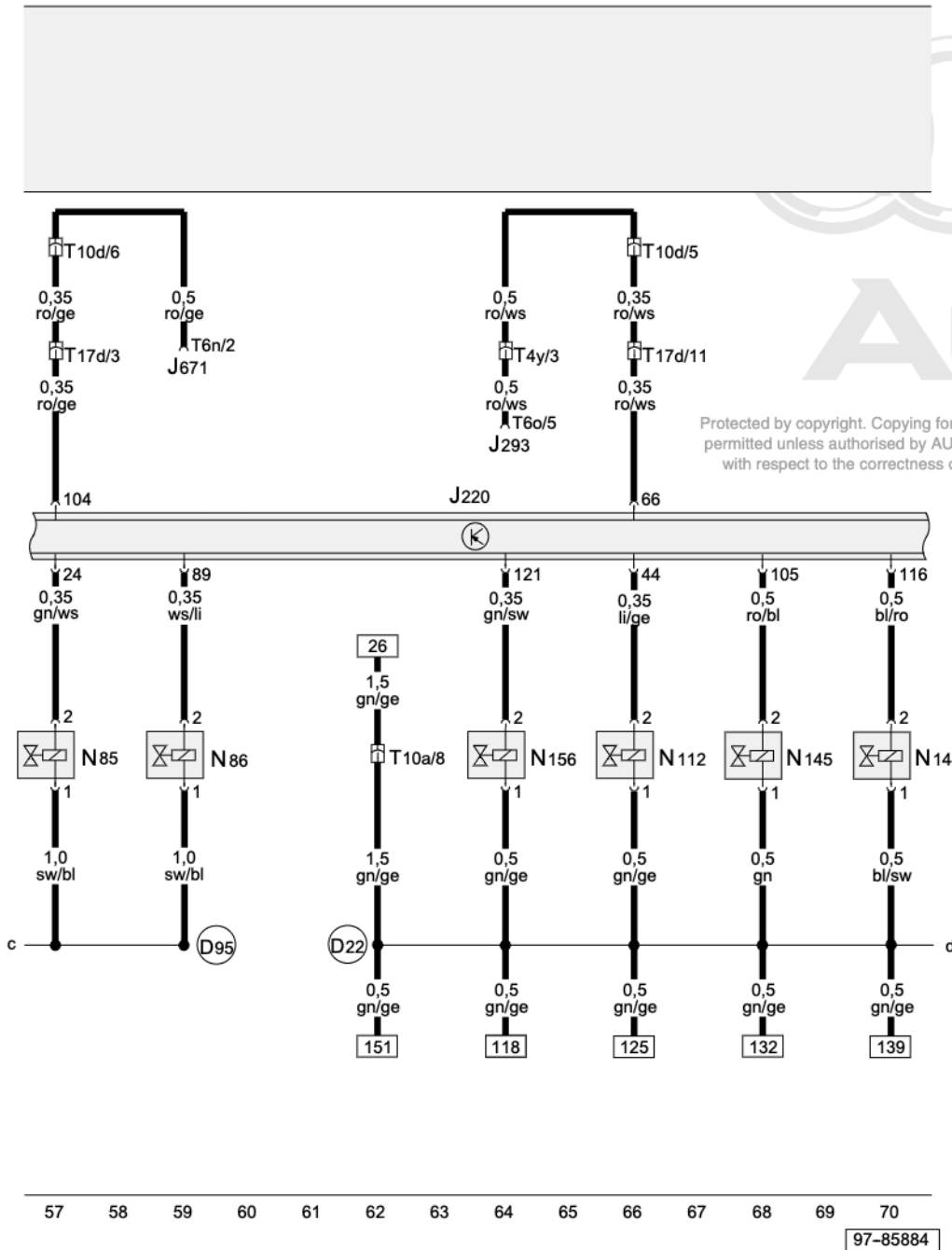
Motronic Engine Control Module (ECM), Cylinder Fuel Injectors

- J220 Motronic Engine Control Module (ECM)
- N30 Cylinder 1 Fuel Injector
- N31 Cylinder 2 Fuel Injector
- N32 Cylinder 3 Fuel Injector
- N33 Cylinder 4 Fuel Injector
- N83 Cylinder 5 Fuel Injector
- N84 Cylinder 6 Fuel Injector
- T10a 10-Pin Connector, brown, connector station E-box, plenum chamber
- D95 Wire connection (injectors), in engine compartment wiring harness

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Motronic Engine Control Module (ECM), Secondary Air Injection (AIR) Solenoid Valve, Injectors, Electro-Hydraulic Engine Mount Solenoid Valve



- J220 Motronic Engine Control Module (ECM)
- J293 Coolant Fan Control (FC) Control Module
- J671 Coolant Fan Control (FC) Control Module 2
- N85 Cylinder 7 Fuel Injector
- N86 Cylinder 8 Fuel Injector
- N112 Secondary Air Injection (AIR) Solenoid Valve
- N144 Left Electro-Hydraulic Engine Mount Solenoid Valve
- N145 Right Electro-Hydraulic Engine Mount Solenoid Valve
- N156 Intake Manifold Tuning (IMT) Valve
- T4y 4-Pin Connector, black, engine compartment
- T6n 6-Pin Connector, on Coolant FC (Fan Control) Control Module 2
- T6o 6-Pin Connector, on Coolant FC (Fan Control) Control Module
- T10a 10-Pin Connector, brown, connector station E-box, plenum chamber
- T10d 10-Pin Connector, grey, connector station A-pillar, left
- T17d 17-Pin Connector, red, connector station E-box, plenum chamber
- D22 Connection (over Fuse 234) (in right front wiring harness)
- D95 Injectors Connection (in engine compartment wiring harness)

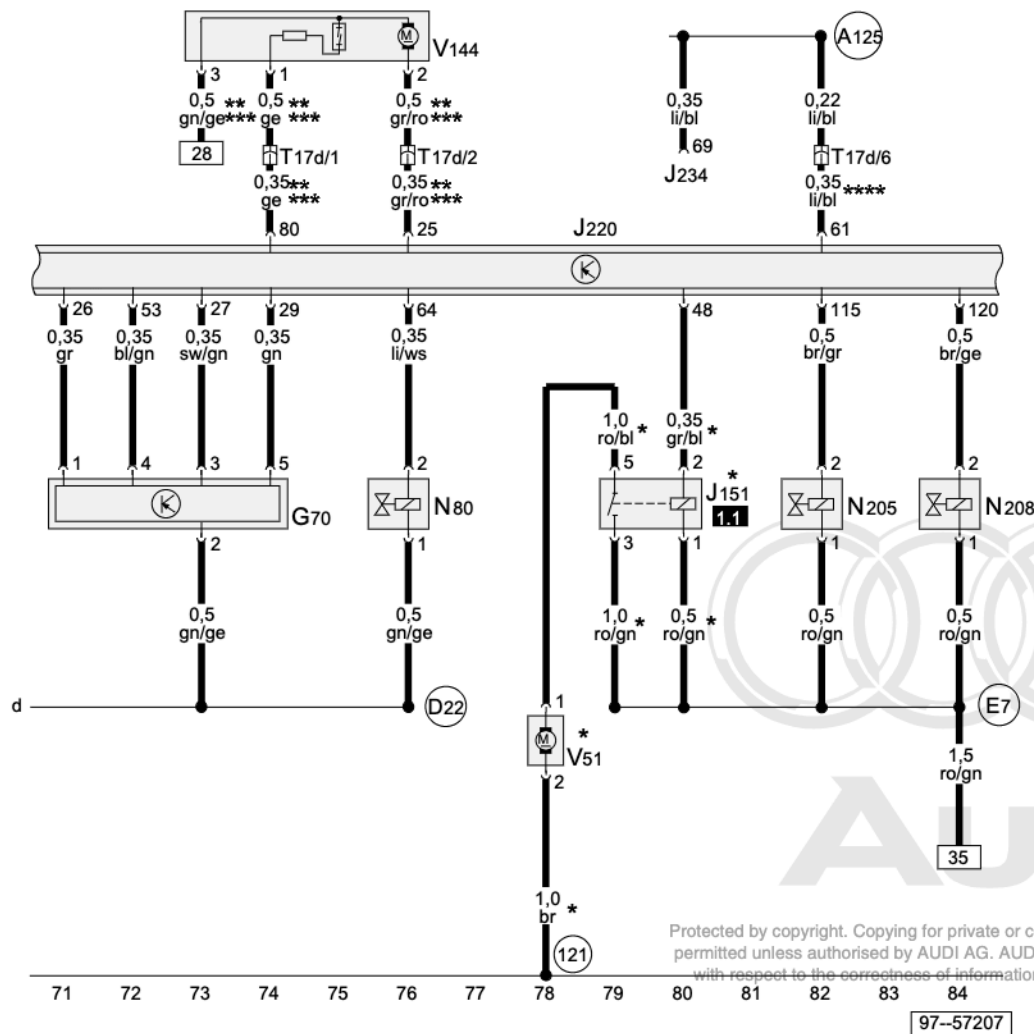
ws = white
 sw = black
 ro = red
 br = brown
 gn = green
 bl = blue
 gr = grey
 li = lilac
 ge = yellow
 or = orange
 rs = pink

Motronic Engine Control Module (ECM), Valves for camshaft adjustment, After-Run Coolant Pump, Mass Air Flow (MAF) Sensor, Evaporative Emission (EVAP) Canister Purge Regulator Valve, Leak detection pump (LDP)

- G70 Mass Air Flow (MAF) Sensor
- J151 Coolant Circulation Pump Relay
- J220 Motronic Engine Control Module (ECM)
- J234 Airbag Control Module
- N80 Evaporative Emission (EVAP) Canister Purge Regulator Valve
- N205 Valve -1- for camshaft adjustment
- N208 Valve -2- for camshaft adjustment
- T17d 17-Pin Connector, red, connector station E-box, plenum chamber
- V51 After-Run Coolant Pump
- V144 Leak detection pump (LDP)

- 121 ground connection -2-, in right front wiring harness
- A125 Connection (crash signal) in instrument panel wiring harness
- D22 Connector (over fuse 234), in wiring harness front, right
- E7 Connection (87a) in Motronic wiring harness

- * Hot climates only
- ** Manual transmission only
- *** Automatic transmission (AG6) only
- **** discontinued from 2003 m. y. (phased in modification)

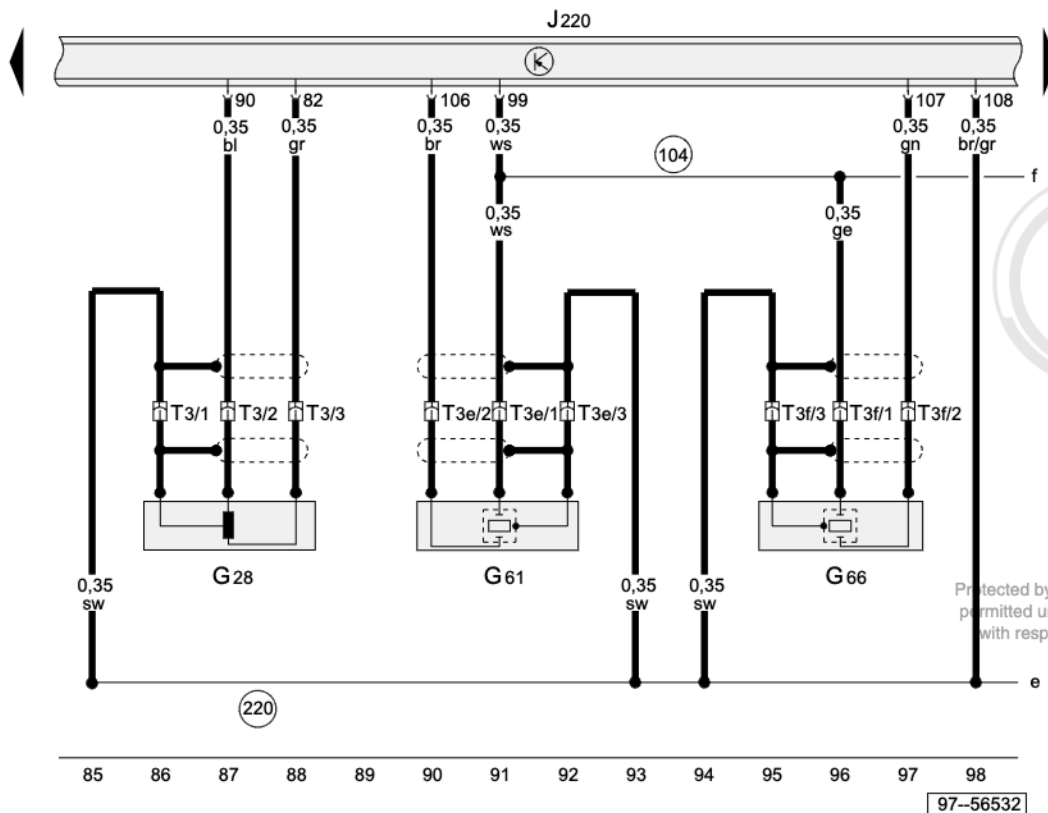


Motronic Engine Control Module (ECM), Engine Speed (RPM) Sensor, Knock Sensors

- G28 Engine Speed (RPM) Sensor
- G61 Knock Sensor (KS) 1
- G66 Knock Sensor (KS) 2
- J220 Motronic Engine Control Module (ECM)
- T3 3-Pin Connector, grey, on engine block
- T3e 3-Pin Connector, blue, on engine block
- T3f 3-Pin Connector, black, on engine block

104 Ground connection, in right front wiring harness - sensor Grounds -

220 Ground connection (sensor Ground), in engine wiring harness

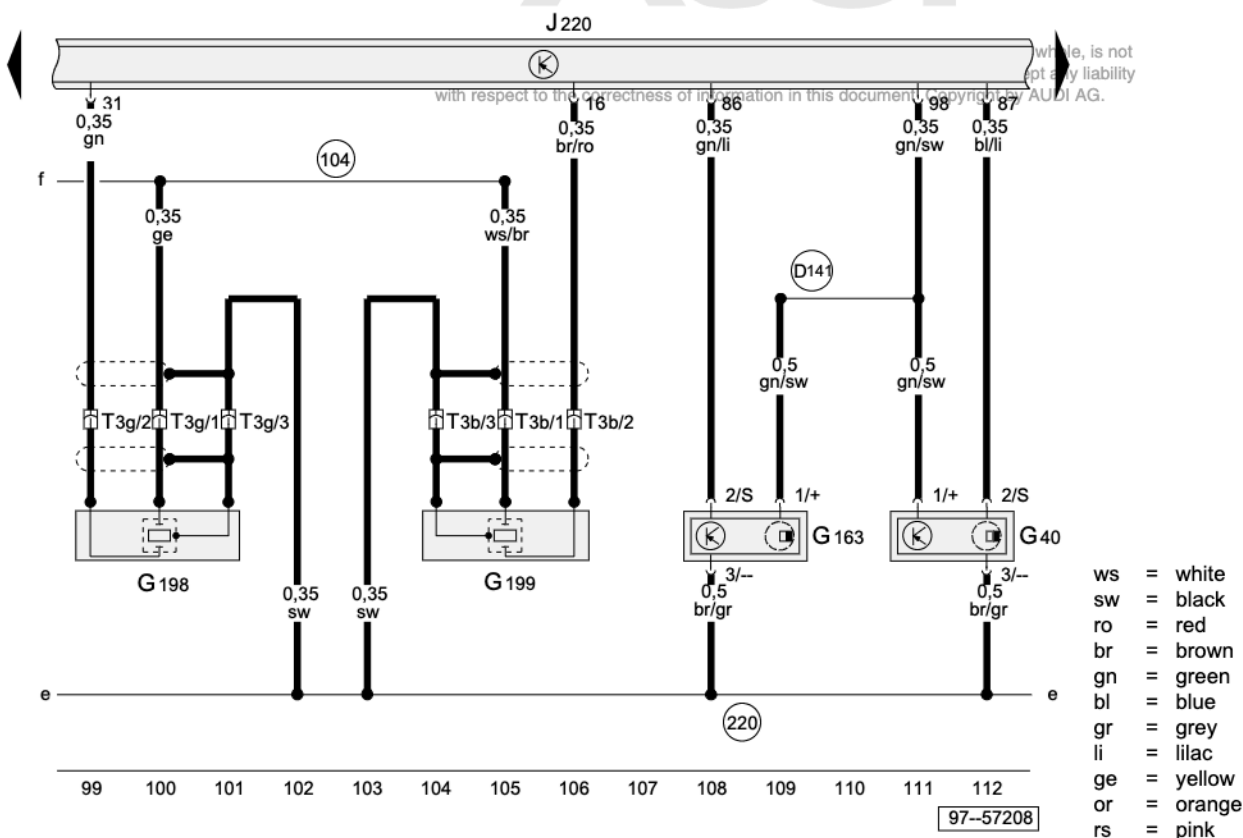


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Motronic Engine Control Module (ECM), Camshaft Position (CMP) Sensor, Knock sensors

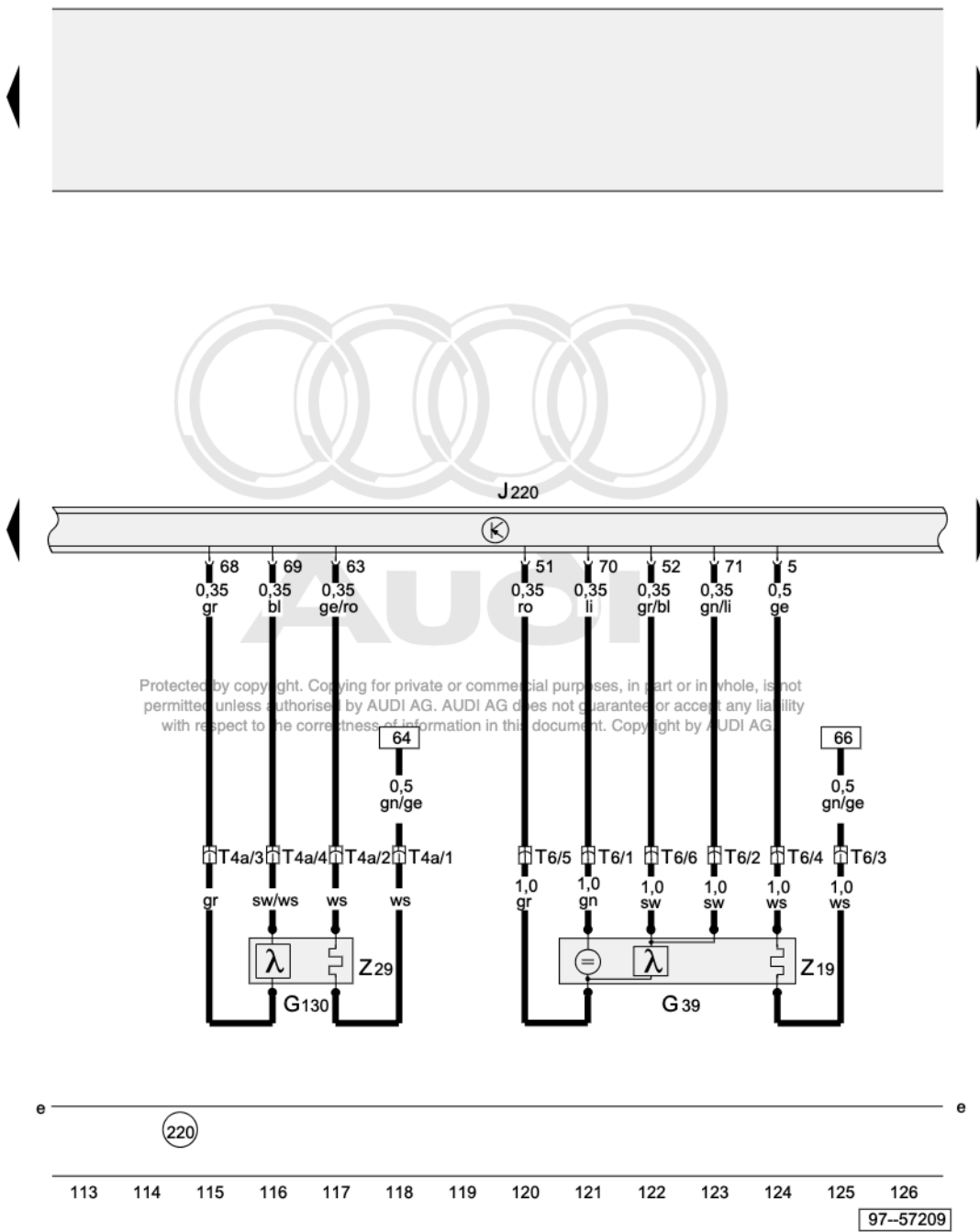
- G40 Camshaft Position (CMP) Sensor
- G163 Camshaft Position (CMP) Sensor 2
- G198 Knock sensor 3
- G199 Knock sensor 4
- J220 Motronic Engine Control Module (ECM)
- T3b 3-Pin Connector, blue, on engine block
- T3g 3-Pin Connector, black, on engine block

- 104 Ground connection, in right front wiring harness (sensor Grounds)
- 220 Ground connection (sensor ground), in engine compartment wiring harness
- D141 Connector (5V), in wiring harness, engine pre-wiring



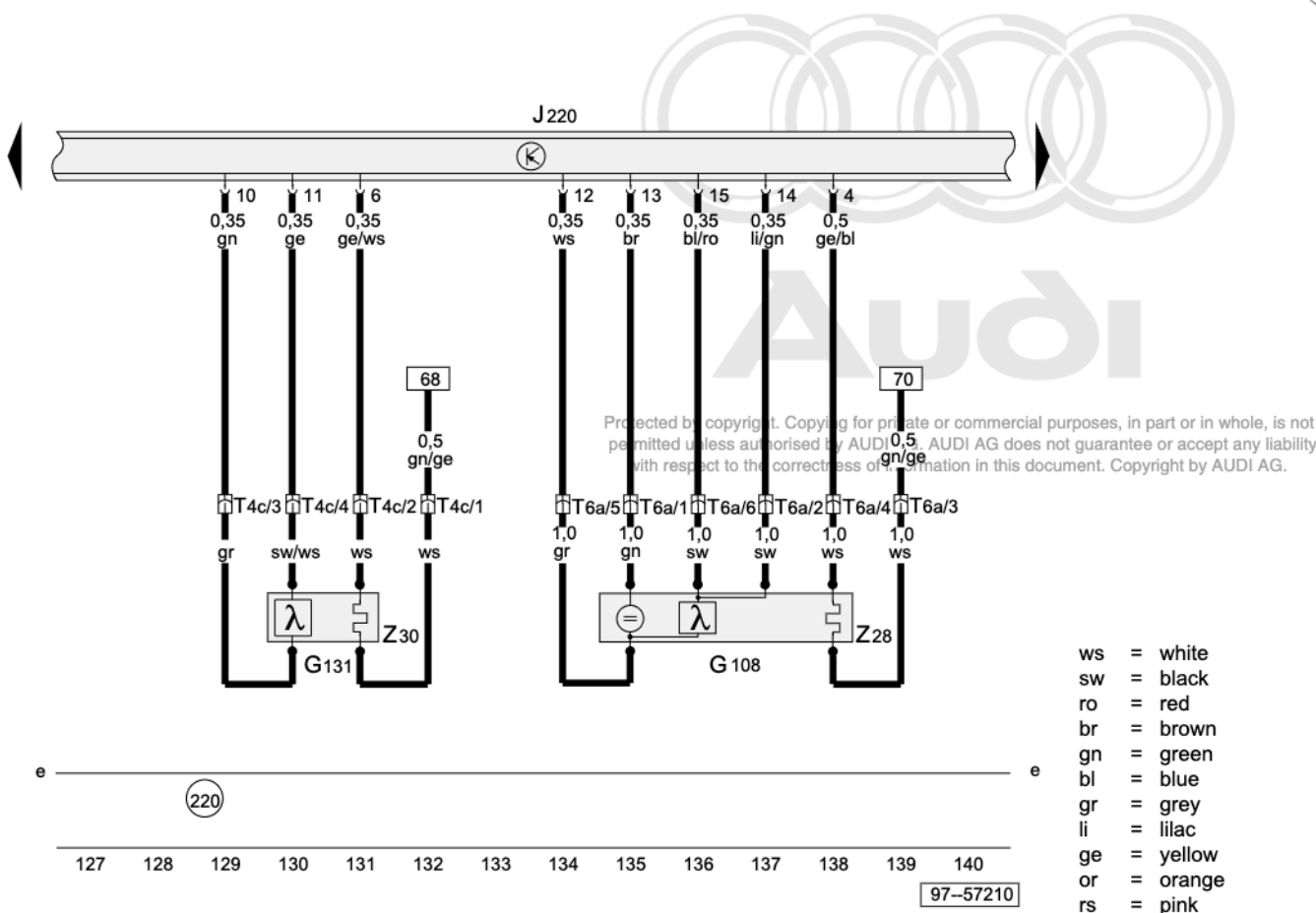
Motronic Engine Control Module (ECM), Heated Oxygen Sensors

- G39 Heated Oxygen Sensor (HO2S)
- G130 Oxygen Sensor (O2S) Behind Three Way Catalytic Converter (TWC)
- J220 Motronic Engine Control Module (ECM)
- T4a 4-Pin Connector, green, connector station Heated Oxygen Sensor (HO2S) (firewall)
- T6 6-Pin Connector, black, connector station Heated Oxygen Sensor (HO2S) (firewall)
- Z19 Oxygen Sensor (O2S) Heater
- Z29 Oxygen Sensor (O2S) Heater 1 Behind Three Way Catalytic converter (TWC)
- 220 Ground connection (sensor ground), in engine compartment wiring harness



Motronic Engine Control Module (ECM), Heated Oxygen Sensors

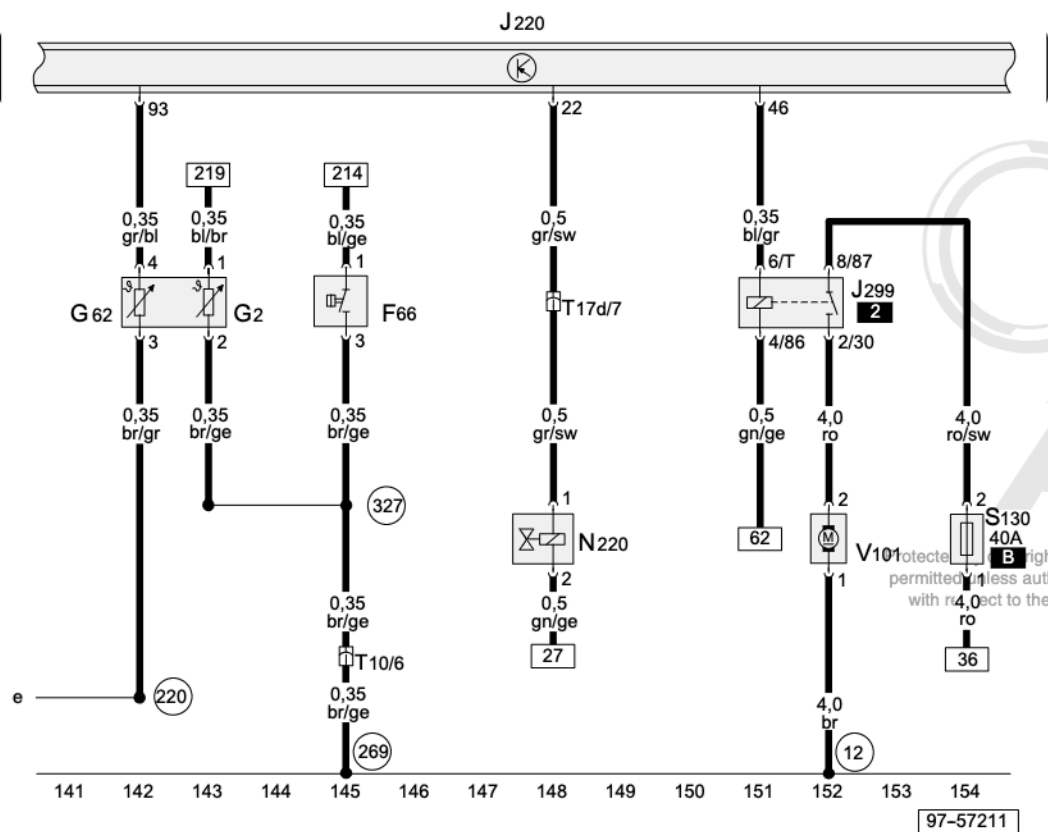
- G108 Heated Oxygen Sensor (HO2S) 2
- G131 Oxygen Sensor (O2S) 2 Behind Three Way Catalytic Converter (TWC)
- J220 Motronic Engine Control Module (ECM)
- T4c 4-Pin Connector, brown, connector station Heated Oxygen Sensor (HO2S) (firewall)
- T6a 6-Pin Connector, black, connector station Heated Oxygen Sensor (HO2S) (firewall)
- Z28 Oxygen Sensor (O2S) 2 Heater
- Z30 Oxygen Sensor (O2S) Heater 2 Behind Three Way Catalytic Converter
- 220 Ground connection (sensor Ground), in engine wiring harness



Motronic Engine Control Module (ECM), Secondary Air Injection (AIR) Pump Motor, Engine Coolant Level (ECL) Warning Switch, Valve for exhaust flap, Engine Coolant Temperature (ECT) Sensor

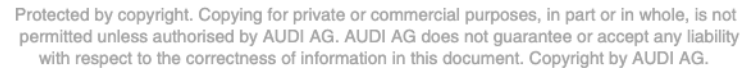
- F66 Engine Coolant Level (ECL) Warning Switch
- G2 Engine Coolant Temperature (ECT) Sensor
- G62 Engine Coolant Temperature (ECT) Sensor
- J220 Motronic Engine Control Module (ECM)
- J299 Secondary Air Injection (AIR) Pump Relay
- N220 Valve for exhaust flap
- S130 Fuse for secondary air pump
- T10 10-Pin Connector, black, connector station E-box, plenum chamber
- T17d 17-Pin Connector, red, connector station E-box, plenum chamber
- V101 Secondary Air Injection (AIR) Pump Motor

- 12 Ground connection, in engine compartment, left
- 220 Ground connection (sensor ground), in engine compartment wiring harness
- 269 Ground connector (sensor ground) -1-, in instrument panel wiring harness
- 327 Sensor Ground Connection (in engine compartment wiring harness)



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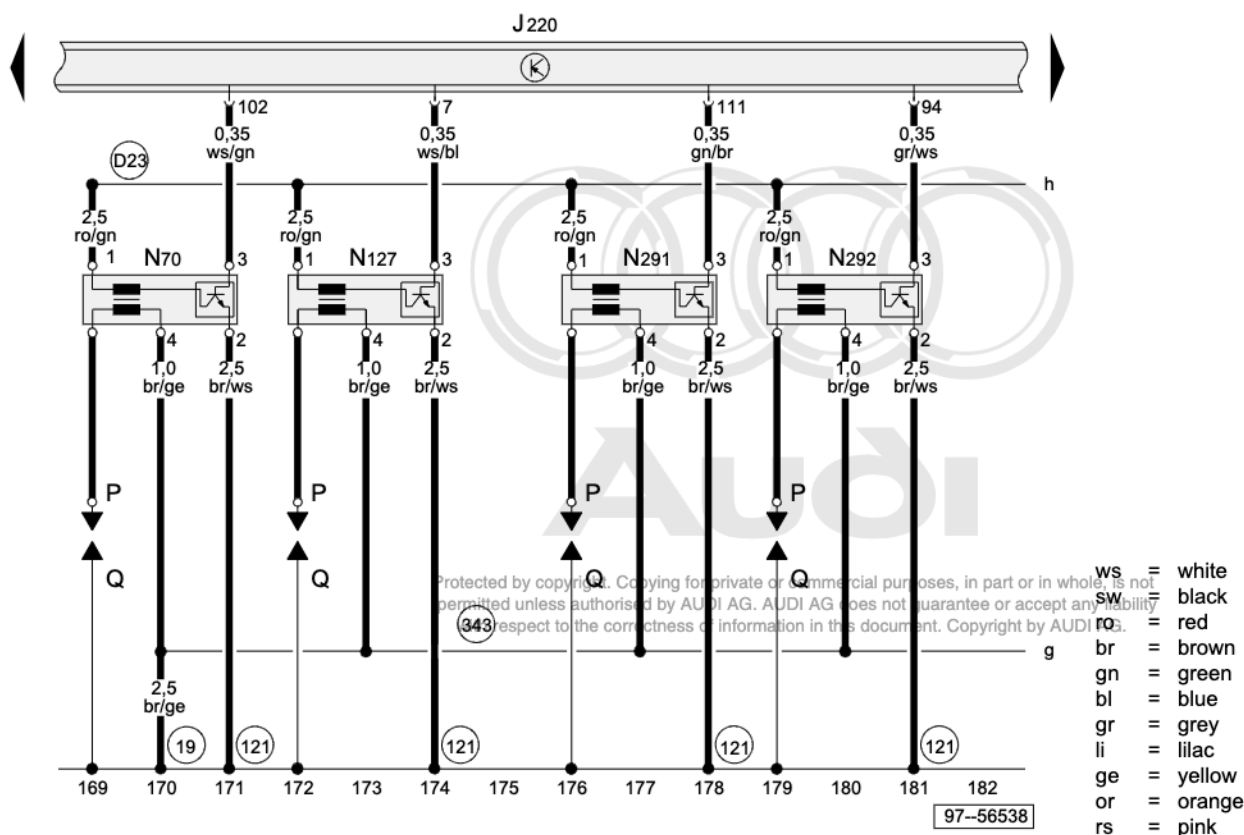
ws = white
sw = black
ro = red
br = brown
gn = green
bl = blue
gr = grey
li = lilac
ge = yellow
or = orange
rs = pink



Motronic Engine Control Module (ECM), Ignition Coils

- J220 Motronic Engine Control Module (ECM)
- N70 Ignition Coil 1 with Power Output Stage
- N127 Ignition Coil 2 with Power Output Stage
- N291 Ignition Coil 3 with Power Output Stage
- N292 Ignition Coil 4 with Power Output Stage
- P Spark Plug Connectors
- Q Spark Plugs

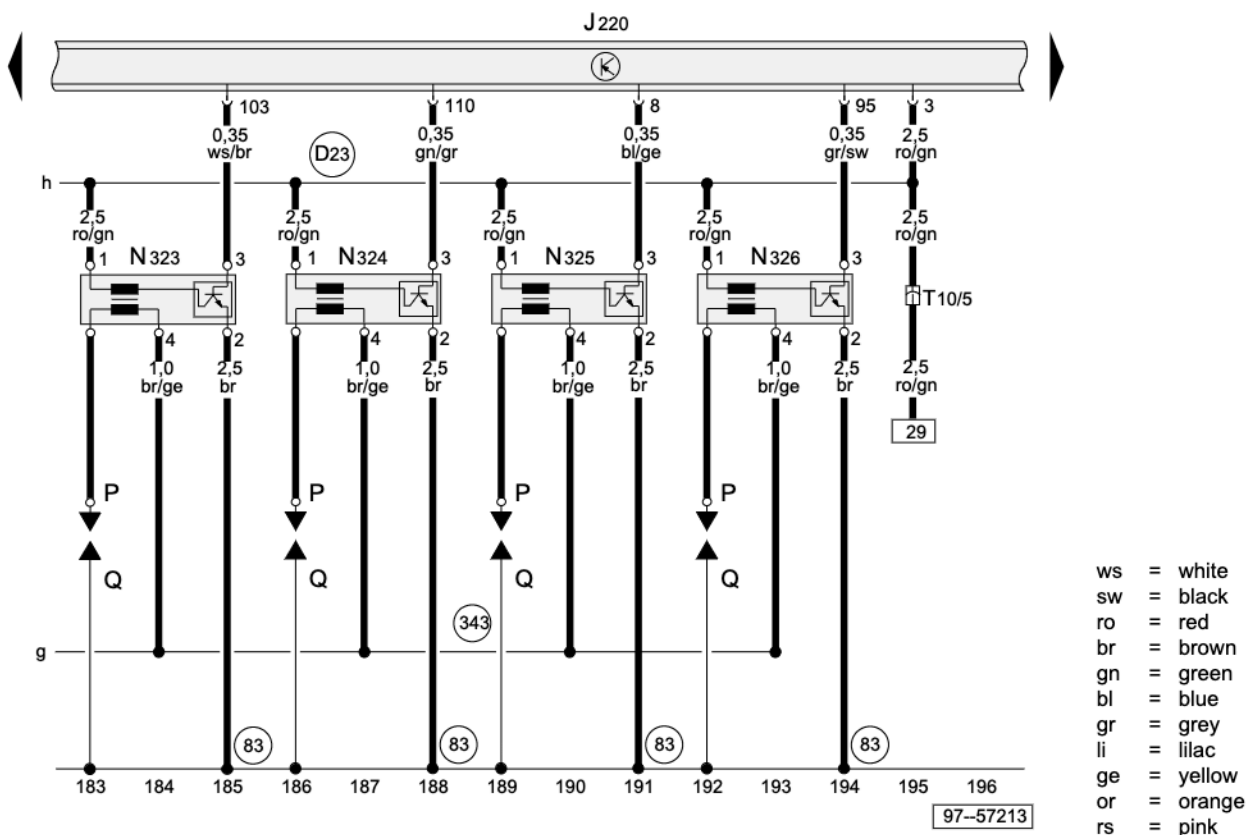
- 19 Ground connection, near ignition coil
- 121 ground connection -2-, in right front wiring harness
- 343 Ignition Coil Ground Connection (in fuel injection wiring harness)
- D23 Connector (over fuse 229), in wiring harness front, right



Motronic Engine Control Module (ECM), Ignition Coils

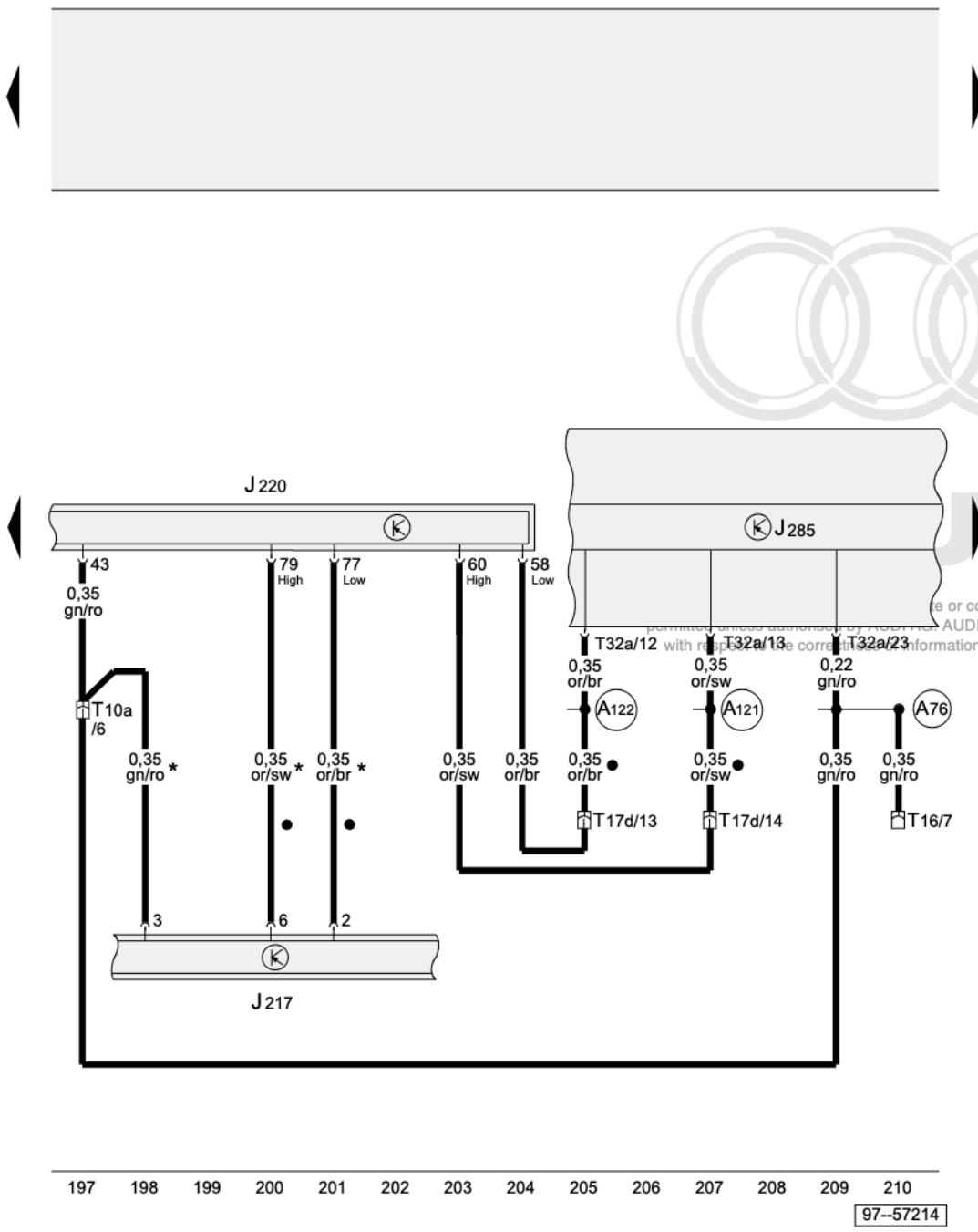
- J220 Motronic Engine Control Module (ECM)
- N323 Ignition Coil 5 with Power Output Stage
- N324 Ignition Coil 6 with Power Output Stage
- N325 Ignition Coil 7 with Power Output Stage
- N326 Ignition Coil 8 with Power Output Stage
- P Spark Plug Connectors
- Q Spark Plugs
- T10 10-Pin Connector, black, connector station E-box, plenum chamber
- 83 Ground connection -1-, in right front wiring harness
- 343 Ignition Coil Ground Connection (in fuel injection wiring harness)
- D23 Connector (over fuse 229), in wiring harness front, right

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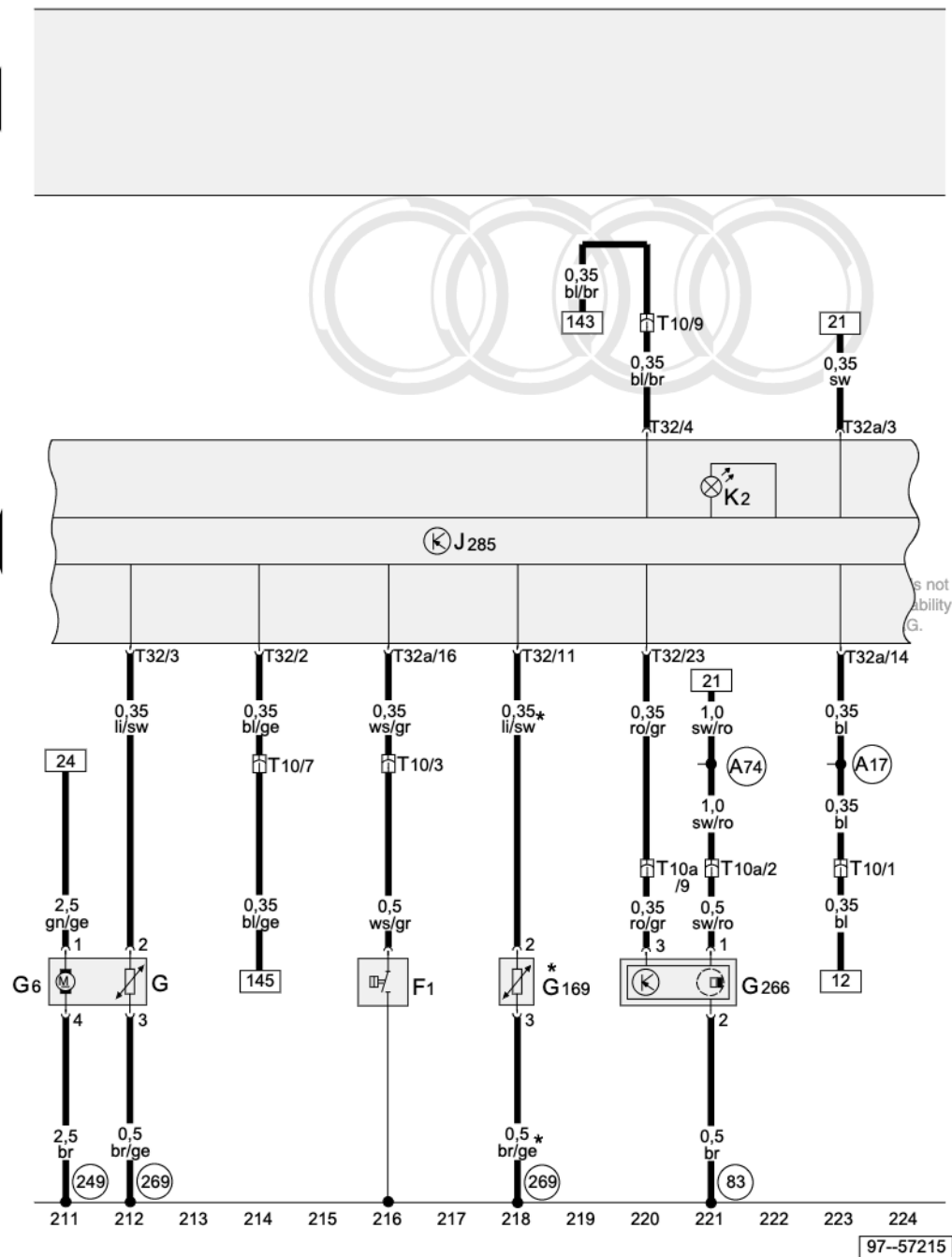


Motronic Engine Control Module (ECM), Transmission Control Module (TCM), CAN-Bus (Data bus)

- J217 Transmission Control Module (TCM)
- J220 Motronic Engine Control Module (ECM)
- J285 Control module with indicator unit in instrument panel insert
- T10a 10-Pin Connector, brown, connector station E-box, plenum chamber
- T16 16-Pin Connector, black, diagnostic connection
- T17d 17-Pin Connector, red, connector station E-box, plenum chamber
- T32a 32-Pin Connector, green, on instrument panel insert
- A76 Wire connection (K-diagnosis wire), in instrument panel wiring harness
- A121 Wire connection (High-bus), in instrument panel wiring harness
- A122 Wire connection (Low-bus), in instrument panel wiring harness
- * Automatic transmission (AG6) only
- ◆? CAN-Bus (Data bus)



97-57214



Control module with indicator unit in instrument panel insert, Oil Pressure Switch, Fuel Pump (FP), Oil Level Thermal Sensor

- F1 Oil Pressure Switch
- G Sender for fuel gauge
- G6 Fuel Pump (FP)
- G169 Fuel Level Sensor 2
- G266 Oil Level Thermal Sensor
- J285 Control module with indicator unit in instrument panel insert
- K2 Generator (GEN) Warning Light
- T10 10-Pin Connector, black, connector station E-box, plenum chamber
- T10a 10-Pin Connector, brown, connector station E-box, plenum chamber
- T32 32-Pin Connector, blue, on instrument panel insert
- T32a 32-Pin Connector, green, on instrument panel insert

- 83 Ground connection -1-, in right front wiring harness
- 249 Ground connection -2-, in wiring harness interior
- 269 Ground connection (sensor Ground) -1-, in instrument panel wiring harness
- A17 Wire connection (61), in instrument panel wiring harness
- A74 Connector (15a, fuse 5), in instrument panel wiring harness

* quattro only